

REMARKS

Claims 11, 12 and 14-24 are pending. Claims 1-10 have been withdrawn from consideration. By this response, claims 11, 15 and 16 have been amended, claims 13 cancelled and claims 18-24 added. Reconsideration and allowance based on the above-amendments and following remarks are respectfully requested.

The Office Action rejects claims 15-17 under 35 U.S.C. §112, first paragraph. Specifically, the Office Action alleges that the recitation of “service channel” is substantially equal to 131nm” is not supported in the specification. Applicant notes that a rejection based on 35 U.S.C. §112, first paragraph for a typographical error, as recognized in the Office Action, is not proper. At best a mere typographical error is objectionable. Nonetheless, Applicant has amended claim 16 to now recite “equal to 1310nm” to correct for the typographical error in the claim and to obviate the rejection under 35 U.S.C. §112, first paragraph. Accordingly, withdrawal of the rejection is respectfully requested.

The Office Action rejections claims 15-17 under 35 U.S.C. §112, second paragraph, as being indefinite. Specifically, the Office Action alleges that the recitation of “a plurality of wavelengths within a range about 1550nm” is indefinite as the range is not clearly defined. Applicant has amended claim 15 to now recite “the range of 1530nm to 1570nm” to clarify the claim language. Accordingly, withdrawal of the rejection under 35 U.S.C. §112, second paragraph is respectfully requested.

Prior to addressing the substantive rejections, applicant provides the following brief summary of the embodiments of the present application. Embodiments of the present invention provide an optical filter which is capable of adding or dropping at least six payload channels (optical signals) and also a service channel. Therefore, a single optical filter can filter a plurality or grouping of payload channels along with a service channel thereby comprising two pass bands, one for the payload channels and one for the service channel.

The Office Action rejects claims 11-17 under 35 U.S.C. §102(b) as being anticipated by Alexander (U.S. Patent No. 5,726,784). This rejection is respectfully traversed.

Alexander teaches wave division multiplexing which places information onto plural optical signal channels for conveyance over an optical guide. In the system of Alexander, optical filters are utilized at the amplifier stage (80) to filter out an optical signal of a specific wavelength. See column 7, lines 60-65. Optical filters are also used at the receiving system. These are Bragg grating filters which are designed to filter out a signal of a specific wavelength. See column 8, lines 49-52. Therefore, each optical filter only filters out a single signal of a specific wavelength. Thus, multiple filters are necessary to filter out a plurality of optical signals which is contrary to the single optical filter recited in amended claim 11.

The Office Action also alleges that the transmission elements provide the claimed service channel. However, applicant submits that the claimed features are not directed to a transmission element but to an optical filter.

Nowhere in Alexander does it teach or suggest utilizing filtering elements where each filter has “two passbands, a first passband being configured to add/drop a plurality of optical signals, each of the optical signals being at a respective one of a plurality of wavelengths, a second passband of said optical interference filter being configured to add/drop a service channel at a wavelength different than the plurality of wavelengths of the optical signals” as recited in claim 11.

The Office Action alleges in regard to claim 14, that “because no piece of equipment is exactly perfect in selecting a desired wavelength, any selected wavelength will inherently have some grouping of closely related wavelengths.” A close examination of the actual claim language reveals that a grouping is referring to a plurality of optical signals at respective wavelengths. The system of the present invention is designed to filter a grouping of specific optical signals, it is not accomplished by mere chance due to equipment fluctuations as suggested in the Office Action. It may be true that some noise signals will be selected along with a specific optical signal, but the equipment is not configured to specifically select these signals to form a grouping. Claim 14 recites, *inter alia*, “said optical interference filter being configured to select a grouping of said plurality of optical signals in said service channel optical service signal” (emphasis added). As stated in the Office Action, this feature of the claim is not provided in Alexander. Further, the imperfect equipment which is based on the prior art, as referred to in

the Office Action, is not configured to select the specific grouping of signals. Accordingly, Alexander fails to teach each and every aspect in regard to claim 14.

Furthermore, applicant submits that reading the claims in light of the specification will provide proper interpretation of the claim language and specifically the use of the term “grouping” in relation to optical signals within the claims. Therefore, an improper understanding of the claim language can be avoided and advancement of prosecution can be expedited.

In view of the above, applicants respectfully submit that the teachings in Alexander fail to teach and every feature of the claimed features as recited in independent claims 1 and 14. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. §102(b) in view of Alexander are respectfully requested.

The Office Action rejects claims 11-14 under 35 U.S.C. §102(e) as being anticipated by Mizrahi, et al. (U.S. Patent No. 6,069,719). This rejection is respectfully traversed.

Mizrahi discloses an optical multiplexer, switch, multiplexer, combiner, etc. connected in a manner to aid the operation of the adding and dropping of optical signals within the multiplexer. The multiplexer of Mizrahi utilizes numerous filters which are a compilation of Bragg gratings each of which independently are used to filter out signals of a specific wavelength (λ). Thus, each filter is comprised of a single pass band. Mizrahi does not disclose a single optical filter which is comprised of two pass bands to filter a plurality of optical signals and a service channel as claimed.

Thus, Mizrahi fails to teach or suggest a plurality of optical filtering elements coupled to said optical communication path, each of said plurality of filtering elements having a single optical interference filter with two passbands, a first passband being configured to add/drop a plurality of optical signals, each of the optical signals being at a respective one of a plurality of wavelengths, a second passband of said optical interference filter being configured to add/drop a service channel at a wavelength different than the plurality of wavelengths of the optical signals, as recited in claim 11.

Also, the Office Action alleges that column 4, lines 7-20 provide the “optical interference filter being configured to select a grouping of said plurality of optical signals and said service channel optical signal” as recited in claim 14. Applicant notes that the claim language refers to a single optical interference filter. This single optical filter is configured to select specific groups of optical signals and also a service channel. In contrast, Mizrahi teaches a multiplexer “based on interference filters” and not a single filter. See column 4, lines 7-8. Further, each of the multiple filters in Mizrahi filters out a single specific wavelength. Each filter does not select a grouping of signals as in the present invention. Finally, Mizrahi teaches the use of a service channel, but does disclose a single filter that along with selecting a group of optical signals also selects the service channel.

In view of the above, applicant respectfully submits that the teachings of Mizrahi fail to anticipate the present invention as recited in claims 1 and 14.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

CONCLUSION


For at least these reasons, it is respectfully submitted that claims 11, 12 and 14-24 are distinguishable over the cited references. Favorable consideration and prompt allowance are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad J. Billings (Reg. No. 48,917) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 
Michael R. Cammarata, #39,491

MRC/CJB:cb
4450-0138P

P.O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000

Attachment(s)